Journal of Mechanical Working Technology, 18 (1989) 363-364
Elsevier Science Publishers B.V., Amsterdam — Printed in The Netherlands

Contents Volume 18

Vol. 18, No. 1

Editorial 1
Free forming of near-hemispherical shells using a urethane pad
S. Thiruvarudchelvan (Singapore) 5
Blanking of thick-gauge metals using a variable-speed pneumatic accelerator designed for a mechanical press
N.S. Ong (Singapore) and L.T. Chan (Hong Kong) 17
An upper-bound solution for elevated-temperature wire drawing
N.H. Loh (Singapore) and D.H. Sansome (Brierley Hill, Great Britain) 33
A study of the effects of ball-burnishing parameters on surface roughness using factorial design
N.H. Loh, S.C. Tam (Singapore) and S. Miyazawa (Tsukuba, Japan) 53
A study of cup–cup axisymmetric combined extrusion by the upper-bound approach. I. Upper-bound solutions for the deformation force
Wu Shichun and Li Miaoquan (Xi'an, P.R. China) 63
The technology of the hydro-bulging of whole spherical vessels and experimental analysis
Z.R. Wang, T. Wang, D.C. Kang, S.H. Zhang (Harbin, P.R. China) and Fang Yi (Qingdao, P.R. China) 85
The warm extrusion of motorcycle gears with precision forming of the billet
Zhang Yaozong, Sun Janguo and Li Yanxiang (Henan, P.R. China) 95
An upper-bound strip technique for predicting spread in forging
Li Yunxing and Zhou Dajun (Changchun, P.R. China) 109
Letter to the Editor
On the evaluation of the work-hardening index of a material from experimental data
W.C. Fok (Singapore) 121
Book Reviews 123
Diary of Events 133

Vol. 18, No. 2

Special "Historical" Issue

Editorial 143
The Woolwich Professors of Mathematics, 1741–1900
W. Johnson (West Lafayette, IN, U.S.A.) 145
Charles Hutton, 1737–1823: The prototypical Woolwich Professor of Mathematics
W. Johnson (West Lafayette, IN, U.S.A.) 195
On the evolution of drill-bit shapes
C.J. Jackson, S.K. Ghosh (Stafford, Great Britain) and W. Johnson (West Lafayette, IN, U.S.A.) 231

Vol. 18, No. 3

Finite-element analysis of the blanking process
P.B. Popat (Gujarat, India), A. Ghosh and N.N. Kishore (Kanpur, India) 269

A system for computer-aided technical preparation in the production of plane parts by stamping
V.I. Illiev, G.S. Popov and M. Ivanov (Rousse, Bulgaria) 283
The effects of explosive hardening on the mechanical properties and structure of HSLA steels
J. Gronostajski and W. Palczewski (Wrocław, Poland) 293
Some aspects of forging in the mashy state
W. Łapkowski (Krakow, Poland) 305
Properties of particulate PVC–metallic explosively compacted aggregates
H.A. Mardani and T.Z. Blazynski (Leeds, Great Britain) 315

Short Communications
Some observations on matrix-assisted kinetic heading
P. Stewart and F.W. Travis (Sunderland, Great Britain) 329
A note on the estimation of flyer-plate velocity in explosive cladding
P.V. Vaidyanathan, M. Rathinasabapathi and A.R. Ramanathan (Annamalainagar, India) 343

Book Reviews 351
Acknowledgement of Referees 361
Author Index Volume 18 362